

CLAIM AMENDMENTS

IN THE CLAIMS

This listing of the claims will replace all prior versions, and listing, of claims in the application or previous response to office action:

1-17. (Cancelled)

18. **(Currently Amended)** A method for transmitting data signals in a communication system with access organized on a distributed basis to an access medium using a plurality of transmission modes by transmitting at least one pilot signal from a transmitter to a receiver, wherein the at least one pilot signal comprises a request for a physical layer expansion, the method comprising:

calculating, by the receiver, an assignment table in respect of the transmission modes using the at least one pilot signal;

transmitting the assignment table from the receiver to the transmitter, wherein the assignment table comprises acknowledgment data for the physical layer expansion; and

transmitting the data signals using the transmission modes in accordance with the assignment table in a direction which is one of from the transmitter to the receiver and from the receiver to the transmitter.

19. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 18, wherein basic transmission is specified in accordance with IEEE 802.11.

20. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 19, wherein at least one pilot signal is transmitted in an RTS message.

21. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 19, wherein the assignment table includes at least one of a bit loading table for adaptive modulation and expansion data for expansions of a physical layer which extend beyond Standard IEEE 802.11 a.

22. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 21, wherein a request from the transmitter for at least one of adaptive modulation and expansions of the physical layer which extend beyond Standard IEEE 802.11 a is made in an RTS message.

23. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 21, wherein at least one of a request and an acknowledgement from the receiver in respect of at least one of adaptive modulation and expansions of the physical layer which extend beyond Standard IEEE 802.11 a are transmitted in a CTS message.

24. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 18, wherein the assignment table is transmitted by the receiver in a CTS message.

25. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 18, wherein a communication terminal includes both transmitter and receiver functionality and the assignment table is transmitted in a direction which is one of from the transmitter to the receiver and from the receiver to the transmitter.

26. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 25, wherein the assignment table is employed in the transmitted data signals.

27. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 18, wherein for transmission of the assignment table at least one data symbol is used which consists of 24 bits.

28. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 21, wherein use of a specific expansion of the physical layer which extends beyond Standard IEEE 802.11 a is confirmed in a CTS message.

29. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 18, wherein the communication system is a CSMA system according to Standard IEEE 802.11.

30. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 18, wherein the transmission modes are at least partly a result of an adaptive modulation.

31. (Currently Amended) A method for transmitting data signals in a communication system with centrally organized access to a transmission medium using a plurality of transmission modes by transmitting at least one pilot signal from a transmitter to a receiver, wherein the at least one pilot signal comprises a request for a physical layer expansion, the method comprising:

calculating, by the receiver, an assignment table in respect of the transmission modes using the at least one pilot signal;

transmitting the assignment table from the receiver to the transmitter, wherein the assignment table comprises acknowledgment data for the physical layer expansion; and

transmitting, in accordance with the assignment table, the data signals using the transmission modes transferred in the assignment table from the receiver to the transmitter.

32. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 31, wherein the data to be transmitted is modulated with a fixed modulation scheme provided there is no assignment table present in respect of the transmission modes.

33. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 31, wherein the assignment table includes at least one of a bit loading table for adaptive modulation and expansion data for expansions of a physical layer which extend beyond Standard IEEE 802.11 a.

34. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 31, wherein the communication system is a CSMA system according to Standard IEEE 802.11.

35. (Previously Presented) A method for transmitting data signals in a communication system as claimed in Claim 31, wherein the transmission modes are at least partly a result of an adaptive modulation.